ISSN 1809-127X (online edition)
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Journal of species lists and distribution

NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Anura, Strabomantidae, *Pristimantis permixtus* Lynch, Ruiz-Carranza, and Ardila-Robayo, 1994: Distribution extension, Valle del Cauca, Colombia.

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ABSTRACT: *Pristimantis permixtus* is a moderate sized frog tipically of upper cloud forests and sub-páramo areas. Here we provide the second record and southernmost of *P. permixtus* in the Occidental Cordillera in the department of Valle del Cauca, Vereda Chicoral, municipality of La Cumbre, Colombia.

Pristimantis permixtus (Lynch, Ruiz-Carranza, and Ardila-Robayo, 1994) is a moderate sized frog (Figure 1), belonging to the *Pristimantis unistigratus* species group (*sensu* Hedges *et al.* 2008). The species is endemic to Colombia, distributed in the departments of Tolima, Valle del Cauca, Risaralda, Caldas and Antioquia on the Central Cordillera, and Jerico (Antioquia) in the Occidental Cordillera, between 2400 and 3700 m above sea level (Lynch *et al.* 1994; Ruiz-Carranza *et al.* 1996). However, Lynch *et al.* (1994) considered the distribution of the species in the Occidental Cordillera (Jerico) needed to be confirmed as it is an isolated record for this Cordillera. The species inhabits upper cloud forests and sub-páramo areas (Lynch *et al.* 1994).



FIGURE 1. Specimens of *Pristimantis permixtus* from Chicoral, Valle del Cauca. Photos by Javier Mendez.

Pristimantis permixtus was the subject of taxonomic controversy, because some specimens from the departments of Antioquia, Caldas and Tolima (Colombia) were initially identified as *Pristimantis supernatis* (Lynch, 1979); the latter is distributed only in the department of Cauca and Huila in southern Colombia (Lynch *et al.* 1994). *Pristimantis permixtus* is most easily distinguished from P. *supernatis* (traits of *P. supernatis* in parentheses) in having white testes (black), no nuptial pad in males (glandular nuptial pads), and in lacking cranial crests (low crest present); additionally, the species is characterized in having a dark reticulation enclosing pale spots in the groin and the concealed surfaces of the thighs; by having distinct labial stripes and a distinct, superficial tympanum; the eyelid and the heel either having nonconical or subconical tubercles; the absence of vocal slits in males and a polymorphic dorsal pattern (Lynch *et al.* 1994).

In November of 2008 six specimens of *Pristimantis permixtus* were collected in the department of Valle del Cauca, Vereda Chicoral, municipality of La Cumbre, Colombia (4° 35' 56" N, 77° 04' 51" W: 1800 m elevation): three males (SVL mean= 24 mm) and three females (SVL mean= 27mm). The specimens were deposited in the Museo de Herpetología at the Universidad del Valle, Cali-Colombia (UV-C 15870-15875). Herein we report the second and southernmost record of *P. permixtus* in the Occidental Cordillera extending the distribution by about 256 kilometers (straight-line distance) (Figure 2).

Pristimantis permixtus has been commonly considered a common species associated with secondary forest, disturbed areas, agricultural land and rural areas (Ramirez

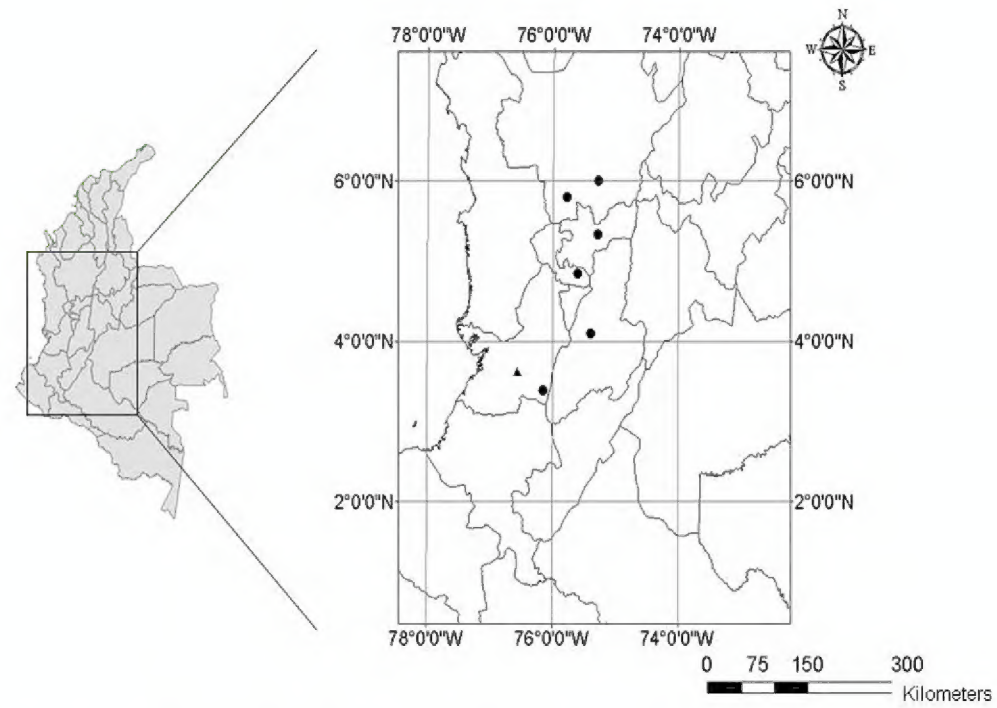


FIGURE 2. Map of distribution of *Pristimantis permixtus* in Colombia. Map of the enlarged areas with the historical locations (black dots) and the new locality (black triangle) in the Vereda Chicoral, Valle del Cauca, Colombia.

et al. 2004); this pattern of habitat use is different for the specimens that we found in Chicoral, since they were collected only in the highest non-disturbed forest areas. The species is rare at this locality. The differences could be attributed to the altitudinal distribution of these specimens, since it's the lowest elevational record for the species (Lynch *pers. comm.*).

Acknowledgments: We are grateful to the community of Chicoral, especially with the Albear-Paredes family and Betty Cadena Giraldo, for their hospitality during the field work. Also thanks to John D. Lynch for the help with specimen identifications and W. Ronald Heyer for his review and suggestions of the paper.

Literature Cited

Hedges, S.B., W.E. Duellman and M.P. Heinicke. 2008. New World direct-developing frogs (Anura: Terrarana): Molecular phylogeny, classification, biogeography, and conservation. *Zootaxa* 1737: 1-182.

Lynch, J.D., P.M. Ruiz-Carranza and M.C. Ardila-Robayo. 1994. The identities of the
Colombian frogs confused with *Eleutherodactylus latidiscus* (Boulenger) (Amphibia: Anura: Leptodactylidae). *Occasional Papers of the Natural History Museum, University of Kansas* 170: 1-42.

Ruiz-Carranza, P.M., M.C. Ardila-Robayo and J.D. Lynch. 1996. Lista actualizada de la fauna
de Anfibia de Colombia. *Revista de la Academia Colombiana de Ciencias Exactas, Físicas y Naturales* 20(77): 365-415.

Ramírez-Pinilla, M.P., M. Osorno-Muñoz, J.V. Rueda, A. Amézquita and M.C. Ardila-
Robayo. 2004. *Pristimantis permixtus*; *In*: IUCN 2009. *IUCN Red List of Threatened Species*. Electronic Database accessible at <http://www.iucnredlist.org>. Capture on 24 November 2009.

Received: February 2010
Revised: March 2010
Accepted: March 2010
Published online: October 2010
Editorial responsibility: Victor G. Dill Orrico